

**Reading: THE ARCHITECTURAL RELEVANCE OF CYBERNETICS by GORDON PASK**  
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# THE ARCHITECTURAL RELEVANCE OF CYBERNETICS

**Gordon Pask**

Pask G. "The Architectural Relevance of Cybernetics". Architectural Design, September 1969, 494-496

## 0. Previous Research:

### Cybernetics Definitions:

1- Wiktionary Concept: "Technology related to computers".

2- Norbert Wiener: "The science of communication and automatic control systems in both machines and living things".

3- Louis Kauffman, President of the American Society for Cybernetics: "Cybernetics is the study of systems and processes that interact with themselves and produce themselves from themselves".

### Key Words:

Cybernetics, System, Dynamic, Functionalism, Mutualism, Responsive/Interactive Environment.

## 1. Text Summary and Analysis

In the article Pask argues that cybernetics and architecture share an intimate relation, a common philosophy, based in the idea that architects are system designers.

After an historical approach in which it is explained that there was no theory about architects designing systems, in spite of they always designed systems, Pask introduces the concept of "architectural mutualism" between structures and societies. While the the human part is a dynamic component, the structural part must be regulated by its inhabitants. "Architects are required to design dynamic rather than static entities".

By illustrating that men interact with their surroundings using visual, verbal or tactile symbols; Park claims that structures should be designed to encourage a productive and pleasurable dialogue between them. In this line of thinking, Pask considers Gaudi's work (especially the Park Güell) as the most cybernetics structures in existence. The reason of his election, in the case of the park, is that the exploration is guided by contrived feedback.

The article posted five speculations about the rapid advances that would be made in the cybernetic field:

-CAD procedures will be developed becoming

a useful instrument.

- Some concepts as civilization, city and education system will be unified between architecture and diverse disciplines such as anthropology, sociology, psychology, ecology and economics.

- There will be a proper and systematic formulation of the sense in which architecture acts as social control.

- Creation of an environment in which the inhabitant cooperates and in which he can externalize his mental processes.

- Gaudi's dialogue with the environment can be refined with modern technology, creating a malleable environment.

Finally, the author says that nowadays architects are demanded to design systems capable to evolve in order to prevent the impact of changes, while in the past this was just an esoteric desire. He also underlines the importance of the interaction not only between a system and the people but also between the architect and the system he is designing, and therefore, controlling.

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## 2. Questions and Challenges

- How Pask's 1969 speculations affected the relation between architecture and cybernetics?
- Which others 20th century structures can be also considered highly cybernetics?
- How can they be improved used current technology?

## 3. Documentation of Responses

The discussion started with a suggestion about the relation between Gaudi's dialogue with the environment and current ecological urbanism theories and ecologically driven smart cities.

Then it was mentioned the influence of the exhibition "Architecture Without Architects" (MoMA, 1964) that basically challenged the traditional understanding of architects as genius. In the same period also was written the book "A Language Pattern" by Christopher Alexander, in which the author intends to give ordinary people, not only professionals, a way to work with their neighbors to improve a town or neighborhood. Artificial intelligence was another important influence during that time and as an example 1968 movie "2001: A Space Odyssey" was stated. At the MIT, Marvin Minsky founded the Computer Science and Artificial Intelligence Laboratory producing a continuous feedback with society.

The idea of Park Güell as a cybernetic structure was a curious fact, especially because dates 50 years before the text. Regarding other examples of interactive environment or cybernetic structures, the picturesque landscapes were quoted, explaining that the way they guide through the experience of nature are similar than in Park Güell.

At the end, the idea of architecture being differ-

ent depending the way you approached was brought to the table and a personal experience in the Taj Mahal, where local people guided you in the exact angle you should pose to have the better pictures, was an illustrative example.



